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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,874	11/12/2003	Yoshikazu Tanaka	ELG061-US	2316

7590 05/30/2006  
Tyco Electronics Corporation  
M/S R20/1B  
307 Constitution Drive  
Menlo Park, CA 94025-1164

EXAMINER
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SAINT SURIN, JACQUES M

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.17

<b>Office Action Summary</b>	<b>Application No.</b> 10/712,874	<b>Applicant(s)</b> TANAKA ET AL.	
	<b>Examiner</b> Jacques M. Saint-Surin	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. This Office Action is responsive to the amendment of 03/13/06.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kent (US Patent 5,591,945).

Regarding claim 1, Benard discloses an acoustic wave contact detecting apparatus (touch screen 100, see: Fig. 2) comprising:

a substrate (10) having a surface (40) along which acoustic waves propagate;  
an acoustic wave generating means (18);  
a reflection array (reflective array 28, 30, 34, 36) for causing the generated acoustic waves to propagate along the surface of the substrate (10), said reflection array comprising an array formed on a Y axis at an edge of the substrate and an array formed on an X axis at an edge of the substrate (col. 30, lines 42-47);

a detector (24) for detecting changes in the acoustic wave caused by an object contacting the surface of the substrate (10);  
and a controller (controller 74) for determining the geometric coordinates coordinates of the object (col. 31, lines 54-67);

a spurious wave scattering means for diffusing spurious waves, which are generated accompanying the generation of the acoustic waves, is formed on the substrate (in FIG. 13 spurious mode suppressor reflectors 50 are positioned adjacent to each of the reflective arrays 28, 30, 34 and 36, the reflectors 50 extending parallel to the axis of the associated array. In an alternative embodiment shown in FIG. 14, a strip of an absorbing material 52 is disposed adjacent to and in front of each of the reflective arrays 28, 30, 34 and 36 on the top surface 40 and optionally on the bottom surface 42 of the substrate 10 in order to absorb spurious Lamb wave energy, see: col. 37, lines 53-66).

Regarding claim 7, it is similar in scope with claim 1 and therefore, it is rejected for the reasons set forth for that claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Kent (US Patent 5,591,945) in view of of Kadota et al. (US Patent 5,260,913).

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7. Regarding claims 3-6, 11-12, 14-15 and 17-20, Kent does not disclose or suggest printing and etching for forming the acoustic wave generating means and the spurious wave scattering means, the mode converting elements and the diffusion portion. Kadota discloses a plurality of interdigital transducers (IDTs) for constructing the plurality of SAW devices are then formed on the upper surface of the piezoelectric mother substrate. The IDTs are formed by evaporating an electrode material over the entire upper surface of the piezoelectric mother substrate and etching the same. The IDTs may be formed by another thin film forming technique such as printing or sputtering, see: col. 9, lines 58-65. It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize in Kent the techniques of Kadota because the bulk wave is scattered by forming the end surface portions below the steps as rough surfaces thereby to make it possible to reduce a spurious mode due to the reflection of the bulk wave from the end surfaces more effectively.

***Allowable Subject Matter***

8. Claims 9 and 16-20 are allowable over the prior art of record.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques M. Saint-Surin whose telephone number is (571) 272-2206. The examiner can normally be reached on Mondays to Fridays between 10:30 P.M. and 8:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMS  
Jacques M. Saint-Surin  
May 23, 2006

  
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